



Water-Data Report 2008

**01383500 WANAQUE RIVER AT AWOSTING, NJ**

PASSAIC RIVER BASIN

LOCATION.--Lat 41°09'37", long 74°20'01" referenced to North American Datum of 1983, West Milford Township, Passaic County, NJ, Hydrologic Unit 02030103, on right bank 700 ft downstream from dam at outlet of Greenwood Lake at Awosting, and 3.7 mi northeast of West Milford.

DRAINAGE AREA.--27.1 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1919 to current year. Prior to October 1940, published as "at Greenwood Lake".

REVISED RECORDS.--WSP 781: Drainage area. WSP 1552: 1922(M), 1928(M), 1936. WDR NJ-79-1: 1933(M), 1936(M), 1945(M), 1948(P), 1951(P), 1952(P), 1953(M), 1955(P), 1956(M), 1957(M), 1958(M), 1960(P), 1961(M), 1968(P), 1969(P). WDR NJ-80-1: 1960(P).

GAGE.--Water-stage recorder. Concrete control since Oct. 31, 1938. Datum of gage is 601.32 ft above NGVD of 1929 (levels from New Jersey Geological Survey benchmark). Prior to Apr. 1, 1926, nonrecording gage, and Apr. 1, 1926 to Oct. 31, 1938, water-stage recorder at site 100 ft upstream at same datum.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Flow occasionally regulated by gates in dam on Greenwood Lake (see 01393000). Water diverted into basin above gage from Upper Greenwood Lake (Hudson River basin) by North Jersey District Water Supply Commission since 1968. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 24	2000	264	3.31
Feb 14	0945	396	3.69
Feb 18	2200	347	3.55
Mar 9	0845	*486	*3.92

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01383500 WANAQUE RIVER AT AWOSTING, NJ—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**  
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.7	45	64	168	40	84	51	43	57	6.9	7.9	6.1
2	9.0	38	53	172	80	78	58	47	48	6.3	10	5.9
3	9.0	34	57	143	85	68	48	46	39	6.0	13	6.1
4	9.0	25	56	118	83	78	58	50	42	6.7	11	6.1
5	9.0	20	49	105	84	210	64	47	39	6.7	8.1	6.2
6	9.0	22	46	96	95	285	60	45	33	6.5	25	12
7	8.8	22	41	88	110	259	56	39	32	6.2	29	49
8	8.3	19	38	79	111	336	52	38	29	6.2	24	47
9	8.2	19	37	73	108	463	49	48	33	6.1	19	56
10	8.0	24	44	71	106	384	49	66	29	6.4	14	67
11	8.0	21	44	74	91	302	45	62	27	6.3	16	55
12	7.2	19	45	80	82	241	53	61	22	6.6	18	47
13	6.4	21	52	77	238	188	52	51	19	6.7	14	49
14	6.1	20	59	81	375	150	48	43	19	6.9	13	45
15	5.9	31	54	78	333	134	43	42	21	7.0	12	41
16	5.9	39	64	70	272	119	39	56	18	7.0	15	32
17	5.7	36	61	60	219	105	37	95	20	7.0	13	27
18	5.8	36	51	66	276	87	35	102	16	7.0	11	23
19	5.9	36	46	62	330	102	32	99	16	7.0	10	17
20	5.7	38	41	59	286	148	31	91	13	7.0	7.8	14
21	5.6	40	36	50	233	140	30	91	15	6.9	6.8	13
22	5.6	41	32	45	202	121	27	87	13	7.0	6.5	14
23	5.6	40	56	43	176	108	26	79	12	7.1	6.6	10
24	5.5	34	239	40	139	97	27	68	12	e11	6.5	8.9
25	5.1	32	248	37	112	85	22	57	10	13	6.4	8.7
26	5.1	48	214	35	101	75	19	48	8.6	12	6.4	28
27	30	70	186	33	106	67	18	57	8.1	12	6.3	39
28	83	73	159	e32	94	65	27	78	7.7	11	6.1	42
29	74	69	156	28	83	61	54	68	7.6	9.9	6.2	46
30	62	66	154	30	---	51	49	59	7.4	8.7	6.4	41
31	52	---	167	28	---	48	---	52	---	8.4	6.4	---
<b>Total</b>	483.1	1,078	2,649	2,221	4,650	4,739	1,259	1,915	673.4	239.5	361.4	862.0
<b>Mean</b>	15.6	35.9	85.5	71.6	160	153	42.0	61.8	22.4	7.73	11.7	28.7
<b>Max</b>	83	73	248	172	375	463	64	102	57	13	29	67
<b>Min</b>	5.1	19	32	28	40	48	18	38	7.4	6.0	6.1	5.9
<b>Cfsm</b>	0.58	1.33	3.15	2.64	5.92	5.64	1.55	2.28	0.83	0.29	0.43	1.06
<b>In.</b>	0.66	1.48	3.64	3.05	6.38	6.51	1.73	2.63	0.92	0.33	0.50	1.18

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	32.4	58.1	67.5	65.1	62.5	100	94.0	59.2	38.4	25.5	25.6	30.0
<b>Max</b>	231	210	197	221	168	271	333	233	178	132	208	231
(WY)	(2006)	(2007)	(1974)	(1979)	(1981)	(1980)	(1984)	(1989)	(1972)	(1938)	(1955)	(1927)
<b>Min</b>	0.20	0.18	1.88	3.00	3.04	5.32	6.02	13.4	4.37	2.76	0.01	0.06
(WY)	(1932)	(1932)	(1985)	(1922)	(1922)	(2007)	(2002)	(1941)	(1957)	(1981)	(1929)	(1929)

Water-Data Report 2008  
**01383500 WANAQUE RIVER AT AWOSTING, NJ—Continued**

**SUMMARY STATISTICS**

	<b>Calendar Year 2007</b>		<b>Water Year 2008</b>		<b>Water Years 1919 - 2008</b>	
<b>Annual total</b>	13,842.3		21,130.4			
<b>Annual mean</b>	37.9		57.7		54.8	
<b>Highest annual mean</b>					105	1984
<b>Lowest annual mean</b>					19.2	2002
<b>Highest daily mean</b>	941	Apr 17	463	Mar 9	2,350	Apr 6, 1984
<b>Lowest daily mean</b>	3.1	Apr 9	5.1	Oct 25, 26	0.00	Oct 15, 1928
<b>Annual seven-day minimum</b>	3.4	Apr 8	5.5	Oct 20	0.00	Jul 27, 1929
<b>Maximum peak flow</b>			486	Mar 9	a2,800	Apr 5, 1984
<b>Maximum peak stage</b>			3.92	Mar 9	6.65	Apr 5, 1984
<b>Instantaneous low flow</b>			5.1	Oct 25-27		
<b>Annual runoff (cfsm)</b>	1.40		2.13		2.02	
<b>Annual runoff (inches)</b>	19.00		29.01		27.46	
<b>10 percent exceeds</b>	86		125		126	
<b>50 percent exceeds</b>	12		40		33	
<b>90 percent exceeds</b>	5.7		6.6		5.0	

<sup>a</sup> From rating curve extended above 750 ft<sup>3</sup>/s based on theoretical weir formula.

